

ADVANCE CONTRACT AWARD NOTICE (ACAN)

1. Advance Contract Award Notice (ACAN)

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

2. Definition of Requirements

The department of Natural Resources Canada (NRCan) has a requirement to develop a prototype fully-integrated groundwater-surface water-climate modelling platform for the Southern Ontario Phanerozoic Basin Region. The mode area is approximately 73,000 km². The intent of the model is to identify the feasibility, and to develop a prototype, multi-objective groundwater surface-water simulation platform. To demonstrate this, the model will focus on simulating the water balance and the general trends in water resource changes that may occur due to changes in hydraulic stresses within the Great Lakes Basin. It is understood that the model will go beyond a parametric model based only on generic assumptions, as the model will be based on a reasonable amount of data, even though limited due to its wide scale, for its construction and calibration. As a tertiary objective, the model would be used to guide further requirement in data collection and monitoring programs for a more extensive model development. The model must be developed in hydrogeosphere. Model mesh will range from 150 m to 1.5 km scale. The modeling initiative will develop a conceptual model, synethises necessary data, develop a calibrated transient model at a seasonal scale. Optional elements of the contract include coupling with a climate model scenario at mid and end of century, increasing the transient model resolution to monthly and modeling non-point source contaminates.

3. Criteria for Assessment of the Statement of Capabilities

Any interested supplier must demonstrate by way of a statement of capabilities that it meets the following requirements:

1. *Two (2) years of experience in constructing large regional (>70,000 km²) integrated transient groundwater – surface water (GW-SW) models in Hydrogeosphere.*
2. *Two (2) years of experience of potential supplier building coupled GW-SW models and climate models run in Weather Research and Forecasting Model (WRF).*
3. *Two (2) years of experience to model non-point-source chemicals within Southern Ontario using the HGS fully coupled hydrologic model in conjunction with a mixing model formulation for chemical transport.*
4. *Five (5) years of experience to modify source code to troubleshoot issues that may emerge in model development in HGS.*
5. *Five (5) years of experience in running modelling software in a parallel computing environment utilizing HPC technology (e.g., SciNet HPC consortium).*
6. *Two (2) years of experience using high performance computing (HPC) and using HGS modelling on the HPC resources.*
7. *Have in-house expertise with PhD qualification or equivalent experience (Five (5) years experiences and minimum of three (3) journal publications) in the following fields (scientific computing, climate modelling, coupling of groundwater – climate models; hydrogeological modelling; solute transport modelling).*

4. Trade Agreements

This procurement is subject to the following trade agreement(s):

- North America Free Trade Agreement (NAFTA)
- Agreement on Internal Trade (AIT)
- World Trade Organization - Agreement on Government Procurement (WTO-AGP)

5. Justification for the Pre-Identified Supplier

We intend to deal directly with the supplier mentioned in section 11 below as; it is the only known supplier that meets the mandatory criteria set out in section 3 above.

Should Canada receive a statement of capabilities from a supplier that contains sufficient information to indicate that it meets the requirements set forth in this ACAN, a competitive process will be triggered with a technical and financial evaluation methodology of the bids proposed by the potential bidders

6. Exception to the Government Contracts Regulations

The following exception(s) to the Government Contracts Regulations is (are) invoked for this procurement under subsection

6(d) – “only one person is capable of performing the work.

The identified provider, Aquanty is the only one able to meet all of the criteria identified in paragraph 3 above.

7. Exclusions and/or Limited Tendering Reasons

The following exclusion(s) and/or limited tendering reasons are invoked under the:

- North American Free Trade Agreement (NAFTA): *Article 1016, 2, b*
- Agreement on Internal Trade: *Article 506.12 (b)*
- World Trade Organization - Agreement on Government Procurement (WTO-AGP): Articles XIII (b)

8. Ownership of Intellectual Property

Canada intends to retain ownership of any Foreground Intellectual Property arising out of the proposed contract on the basis that the main purpose of the contract is to generate knowledge and information for public dissemination.

9. Contract Period

The contract period will be from December 15, 2016 to March 30, 2018.

10. Estimated Cost

The estimated maximum value of the contract is \$299,450.00 CAD taxes applicable inclusive.

11. Name and Address of the Proposed Contractor

Aquanty

564 Weber Street North, Unit 12

Waterloo, ON, N2L 5C6

519 279-1080

Contact: Steve Frey

sfrey@aquanty.com

12. Suppliers' right to submit a statement of capabilities

Suppliers who consider themselves fully qualified and available to provide the services/goods described herein, may submit a Statement of Capabilities in writing, preferably by e-mail, to the contact person identified in this Notice on or before the closing date and time of this Notice. The Statement of Capabilities must clearly demonstrate how the supplier meets the advertised requirements.

13. Closing Date

The closing date for a submission of a Statement of Capabilities is November 28, 2016 at 14:00 Eastern Standard Time.

14. Contract Authority

France Bolduc

Procurement Specialist

Natural Resources Canada

1055, rue Du P.E.P.S., C.P. 10380

Quebec, QC

G1V 4C7

418 648-5043

france.bolduc@canada.ca